THE AUTOMOTIVE EDGE™

01.03

The Official Publication of the
NATIONAL LOCKSMITH AUTOMOBILE ASSOCIATION™

# 2001 Toyota MR2

**by Michael Hyde & Alan Morgan**

***1. The Toyota MR2 Spyder is the third generation of Toyota's sporty, mid-engine two-seater. The car was not sold in the U.S. from 1995 to 1999, but since 2000 Toyota has sold the redesigned convertible MR2 in America. All new models share the same transponder system that is found on the Camry, Solara 4-Runner and other high-end Toyota models. This system requires a programmed master key if additional keys are needed. If no working master keys are available there are only two options: replace the Engine Control Unit (ECU) or have the existing ECU "reflashed" to accept new keys. Luckily, National Auto Lock provides this re-flashing service for a mere $150.00, which includes 3 keys, easy-to-follow programming instructions and free ground shipping. In this case, the owner of the MR2 choose the cheaper resetting option, as he had lost his keys in the snow and did not want to pay $1200.00 for a new ECU or wait for the spring thaw.***

## Door Lock:

***2. The door lock can be removed without removing the handle, but I chose to remove the handle for the sake of the article.***

Issue No.42

Here are the two best websites for Automotive Locksmiths:

www.TheNationalLocksmith.com
Chat, Forums, Editorial,
Online Store, Tech Support

www.Laserkey.com
Product & Technology Sales,
Transponder Information Resources

**3. Door panel and door lock removal is fairly easy for this little sports car.**

**National Locksmith Automobile Association™**

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1533 Burgundy Parkway
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Phone 630-837-2044
Fax 630-837-1210

E-mail address:
natllock@aol.com

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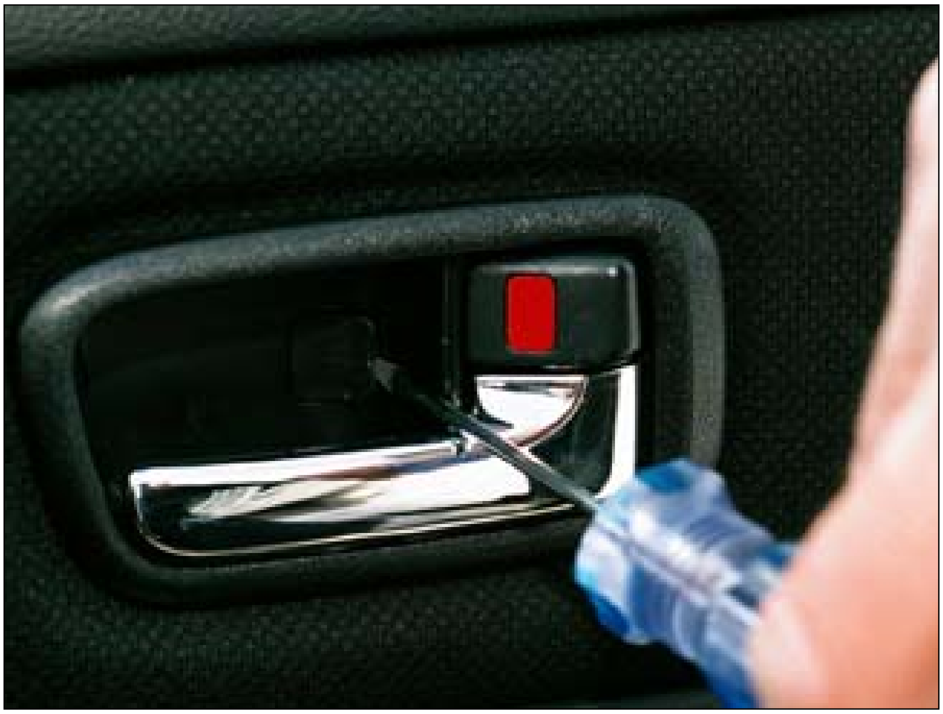
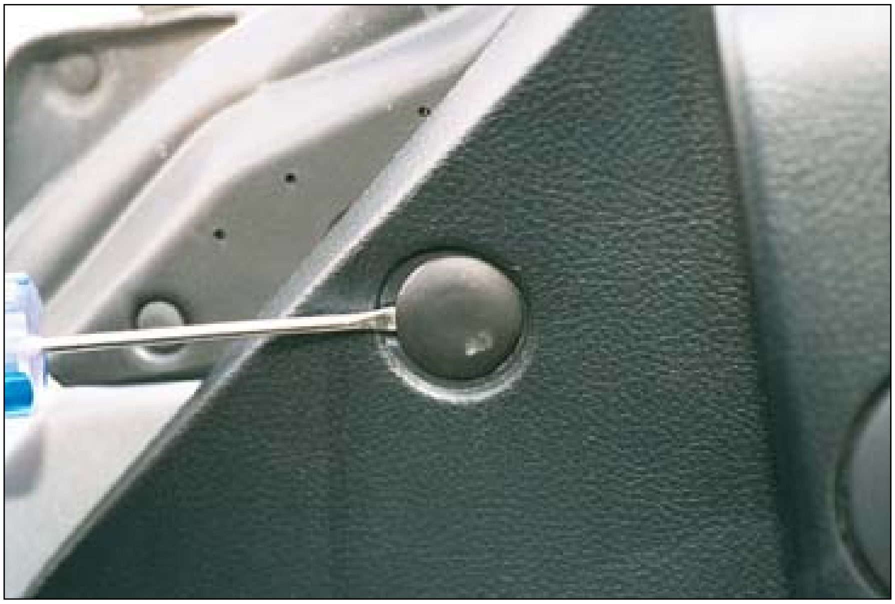
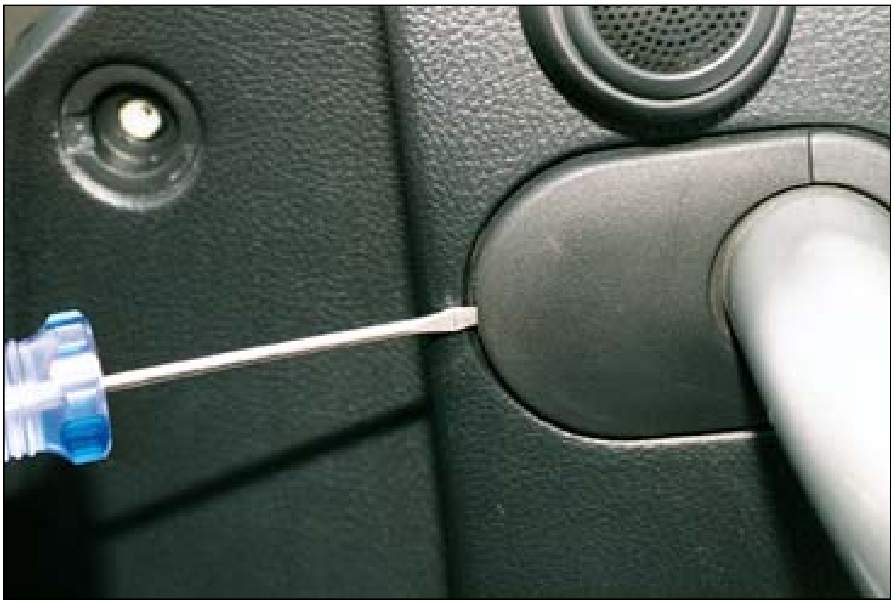
**Issue No. 42**



**4. First remove the Phillips screw and inside panel trim piece around the lock/unlock button.**

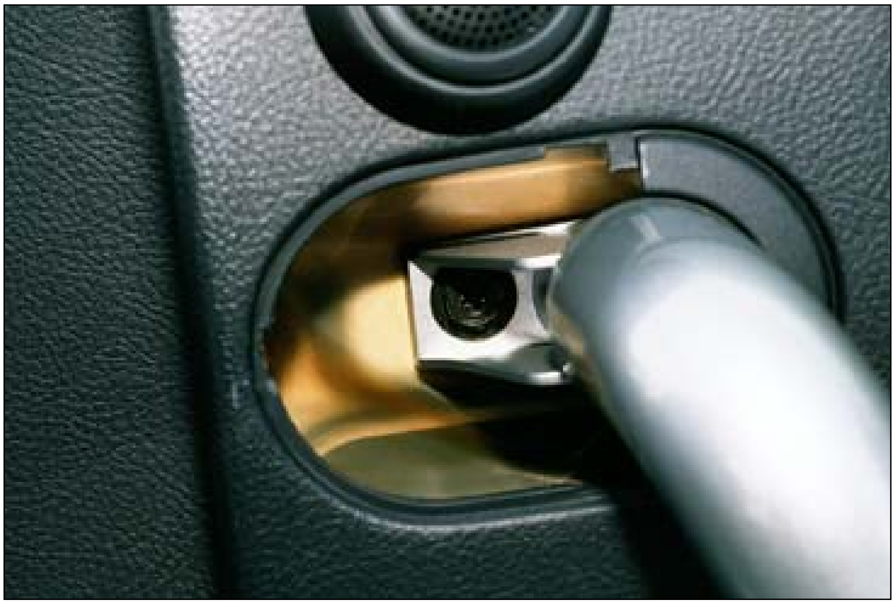
***5. Second use a small flat blade screwdriver to remove the plastic "button type" clip that is found just to the left of the inside passenger door handle.***

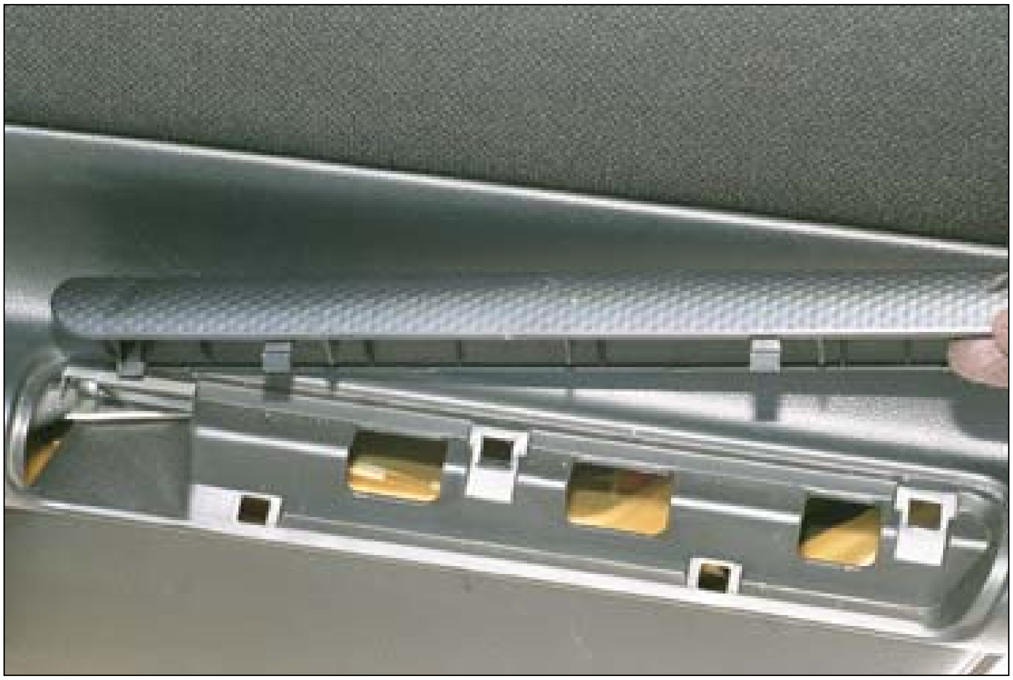




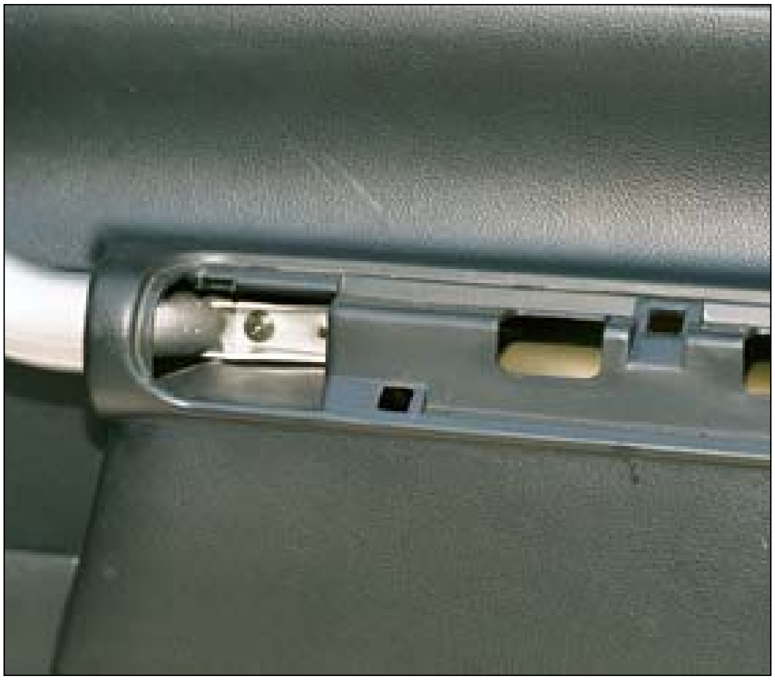
***6. Next remove the large trim piece that surrounds the passenger side door handle, directly below the factory tweeter speaker.***

***7. Now you can remove one of the larger Phillips screws that secure the upper arm rest.***



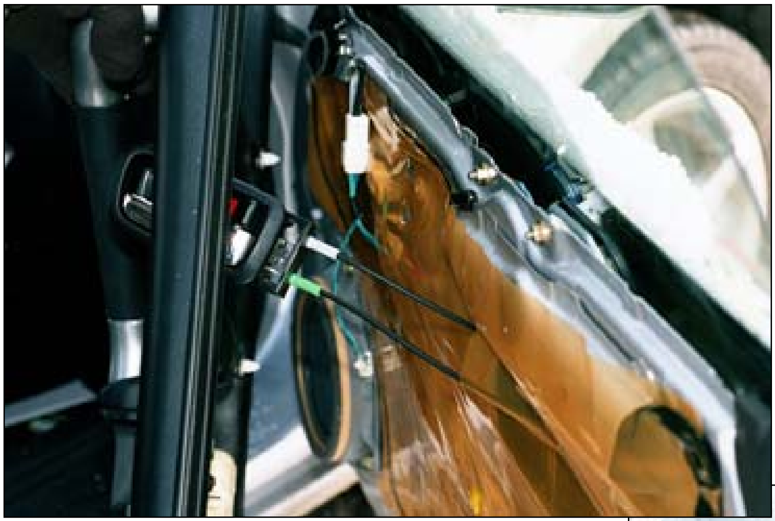


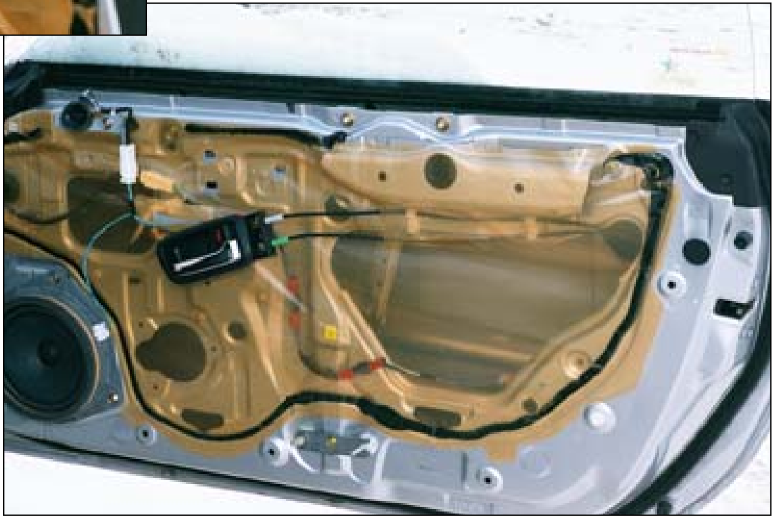
8. To gain access to the other large Phillips screw securing the panel, you must gently pry upward on the padded elbow rest.



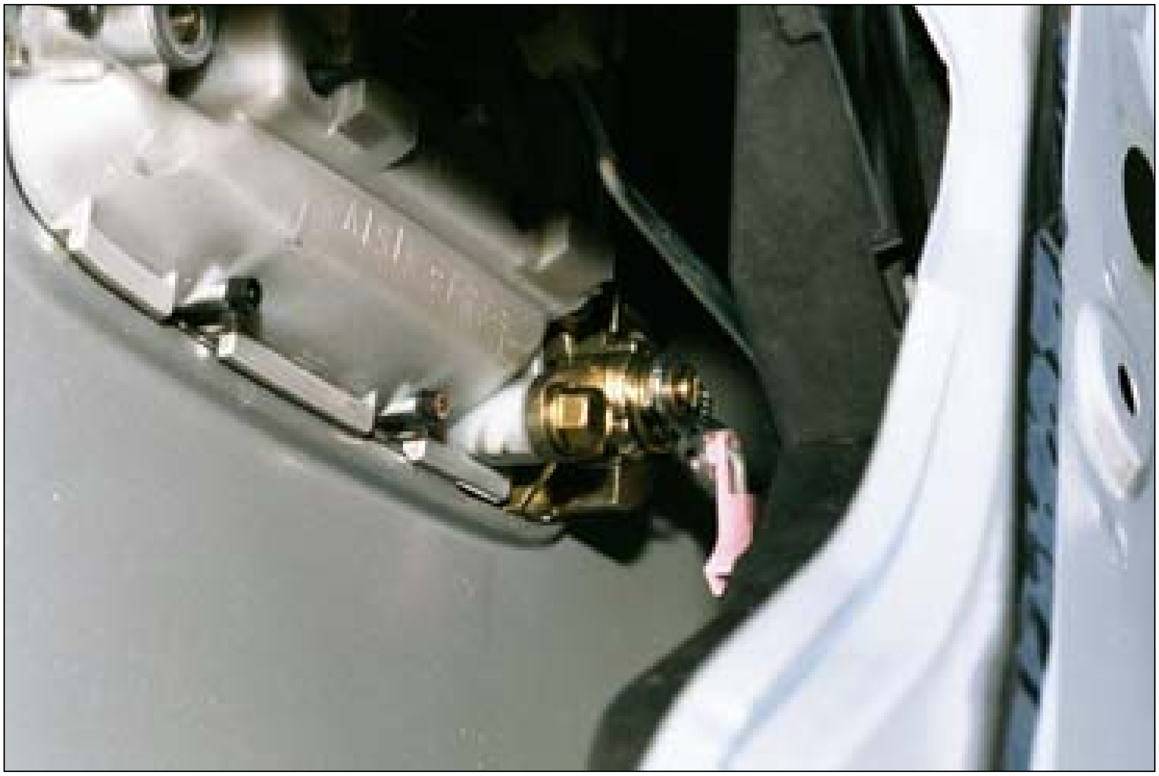
9. Remove the remaining Phillips screw.

10. Remove the panel by pulling outward.

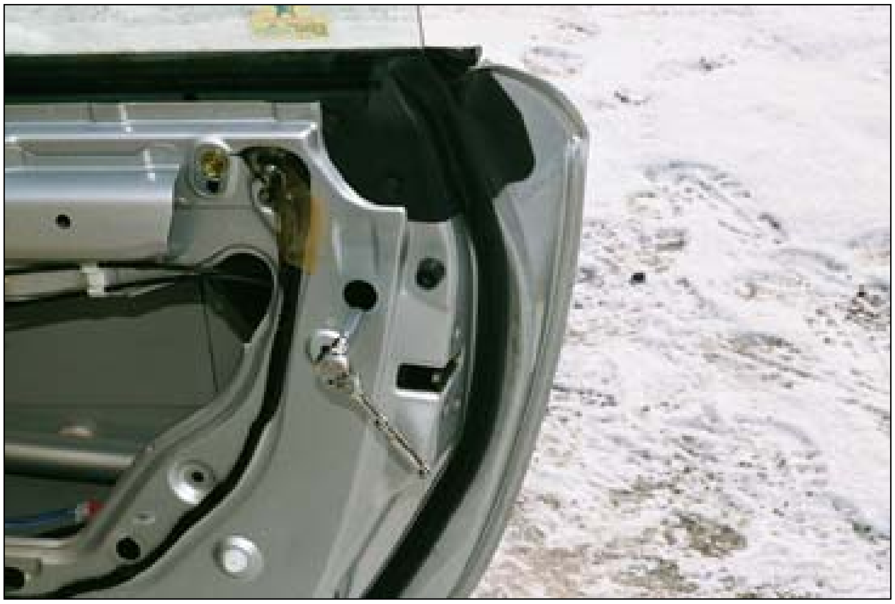




***11. You can see the bicycle-style cable linkages that are becoming more and more common on today's cars. For this reason it is recommended that you use an "invader type" inside access tool or under-the-window tool to open this vehicle. Trying to go down the panel will only leave you frustrated and cold.***

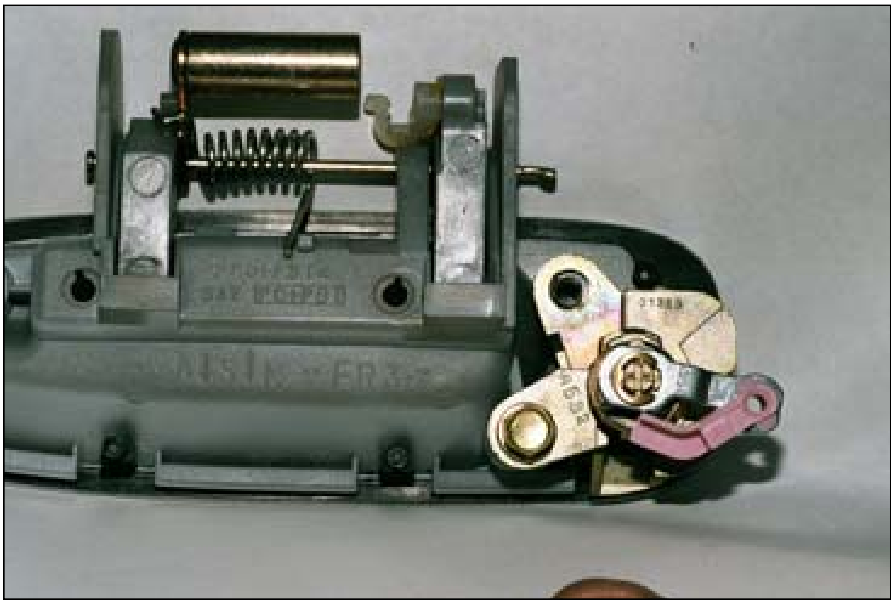


***12. The next step is to disconnect the handle to door latch linkages and the door lock to door latch linkages. After the linkages have been disconnected, you can easily see the two 10mm bolts that hold the handle in. (The leftmost bolt has been removed in this picture.)***



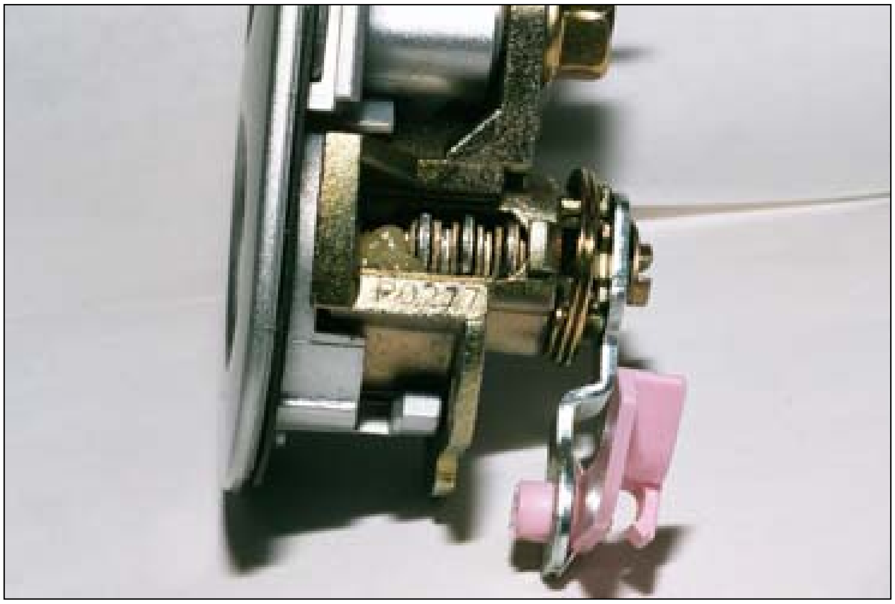
***13. Here is a picture of the socket in the access hole to remove the right 10mm. bolt.***

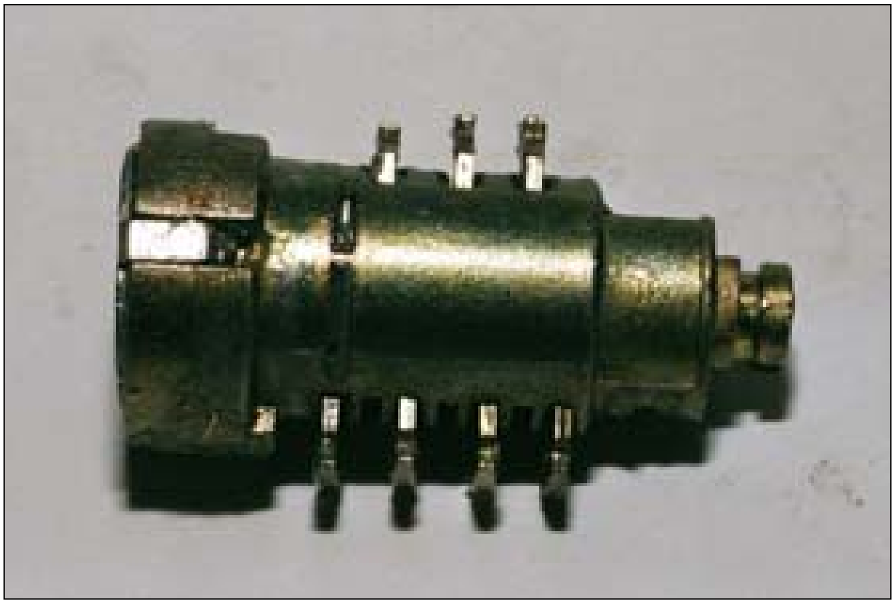
***14. The handle can now be removed from the front.***



***15. A view of the handle removed from the car and how the lock cylinder is attached.***

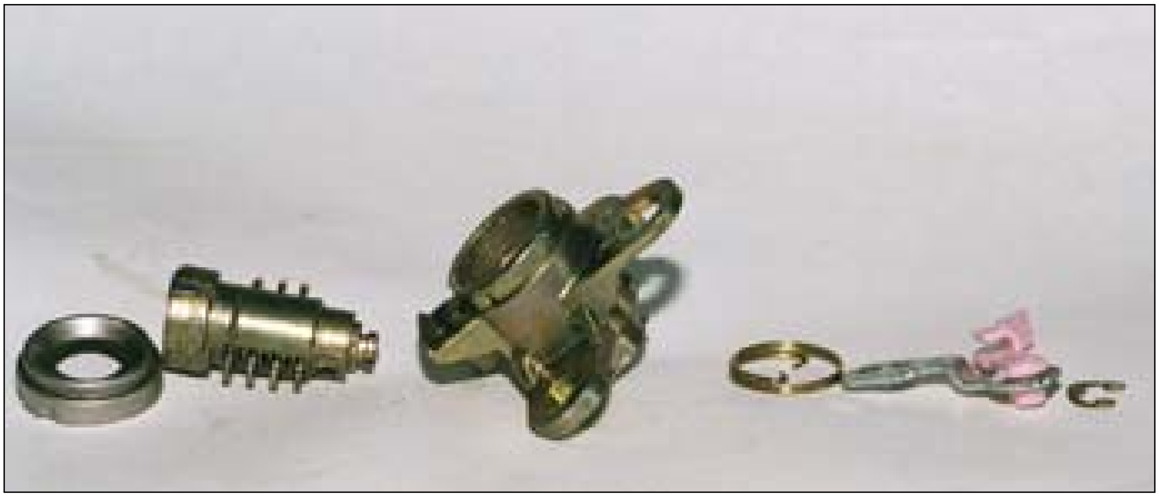
**16. Now that the handle has been removed you can easily see the key code (P0277) as well as the remaining 10mm bolt that holds the lock to the handle.**

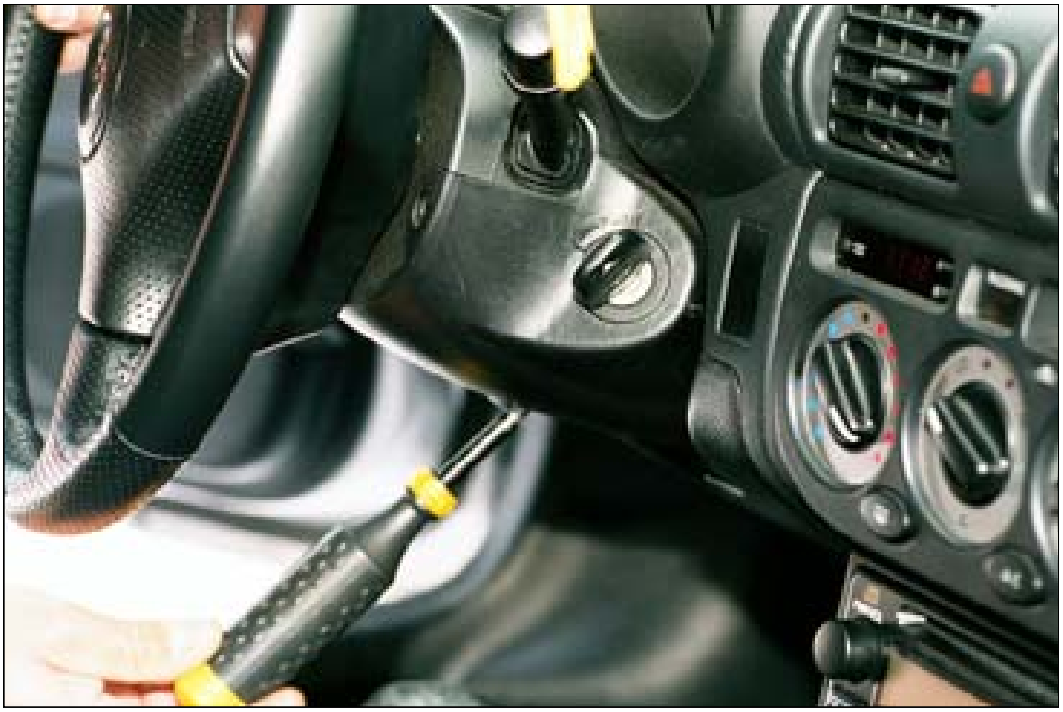




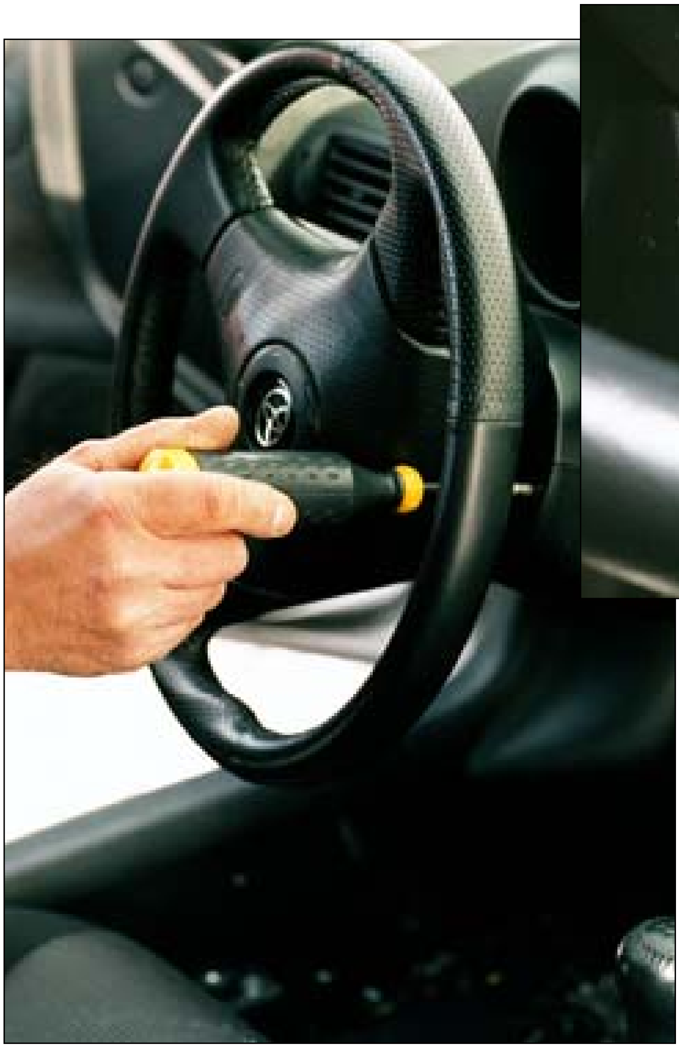
**17. Here you can see the last seven of eight tumblers. They are stamped with the depth.**

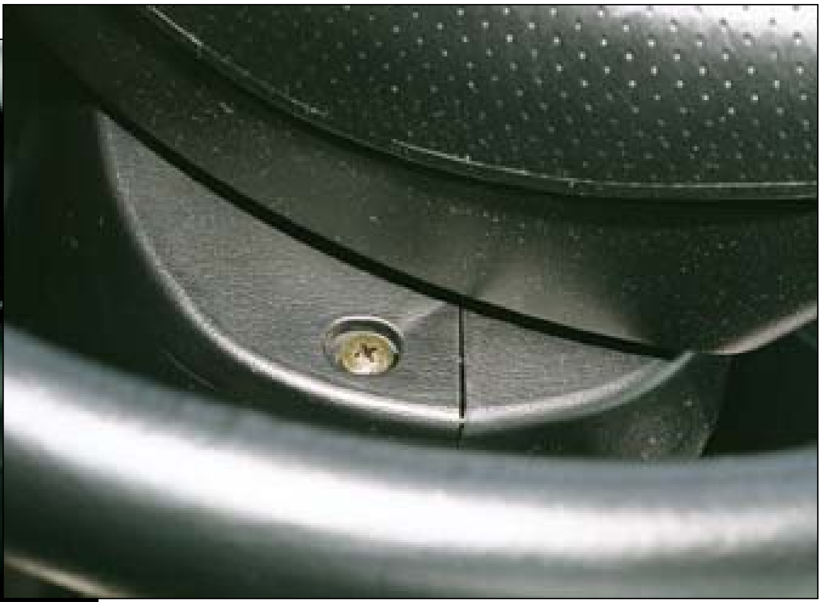
**18. The door lock disassembled.**





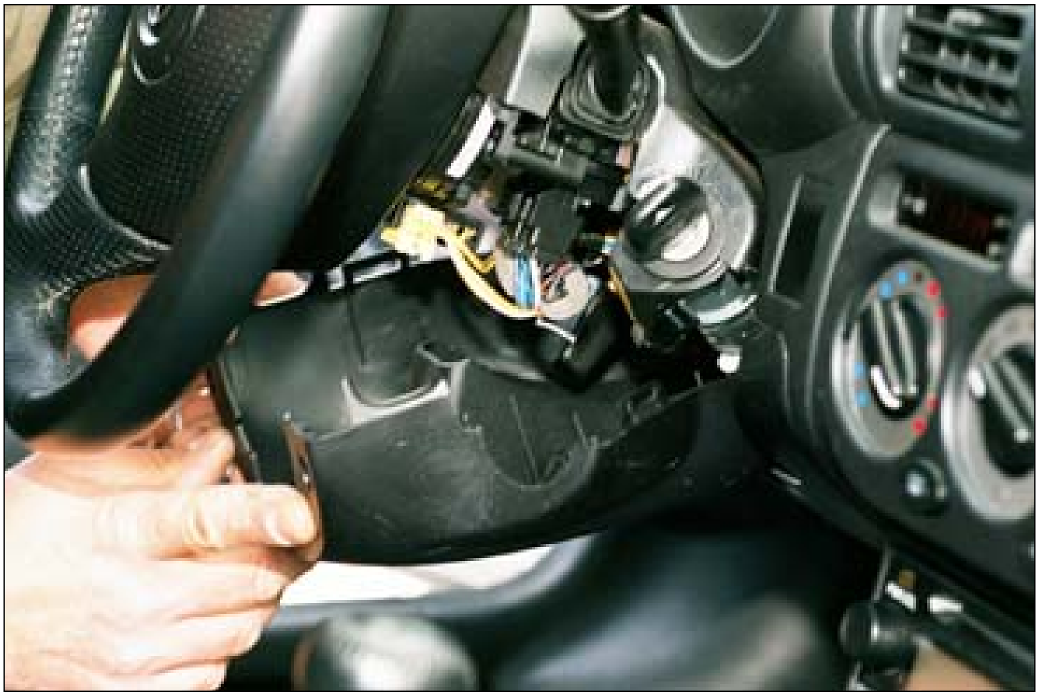
***19. The ignition lock on the MR2 Spyder is very similar to that found on the Toyota Corolla. Start by removing the single Phillips screw that is located at the 6 o'clock position on the underside of the shroud.***

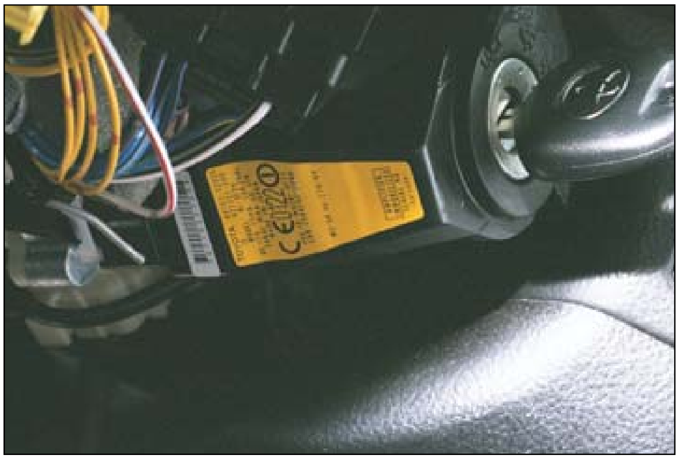




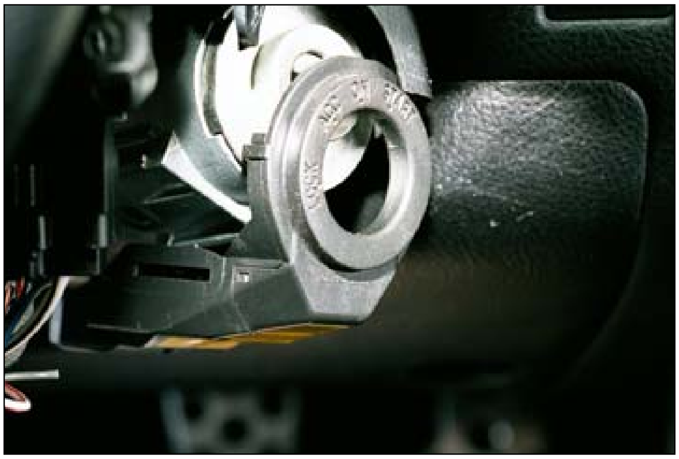
***20. Remove the two Phillips screws that hold the clamshell steering wheel shroud together. These screws are located at the 3 o'clock and 9 o'clock position directly behind the steering wheel. A working key is needed at this point, as the steering wheel must be unlocked to get at these screws.***

**21. Now unsnap the upper and lower halves of the shroud.**

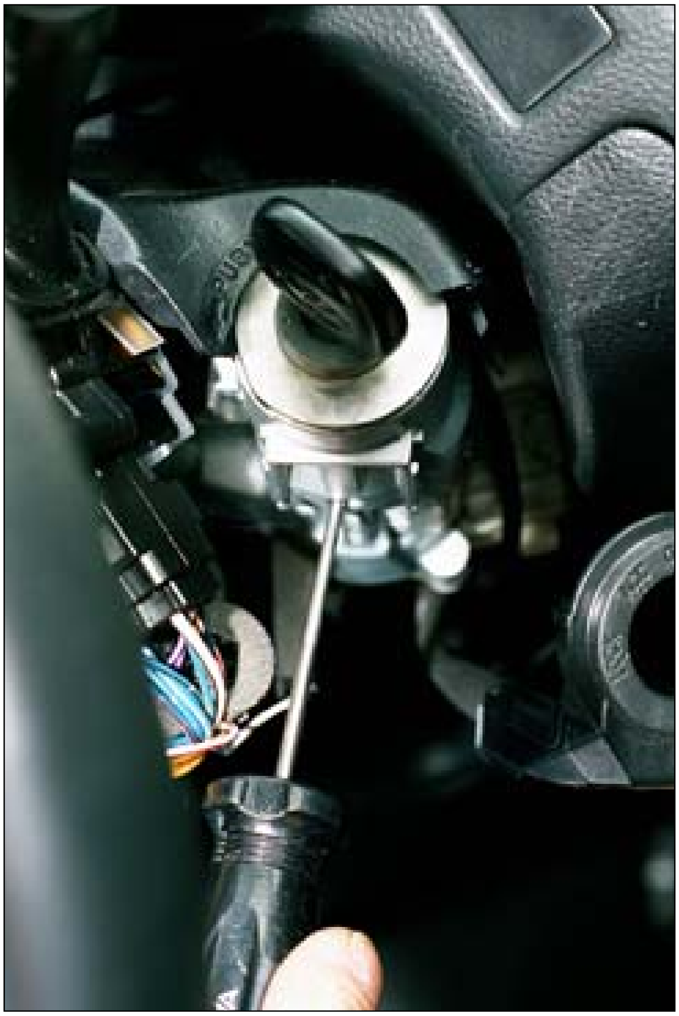




**22. The ignition lock is now visible at this point, but to remove the cylinder you must get the antenna ring out of the way.**

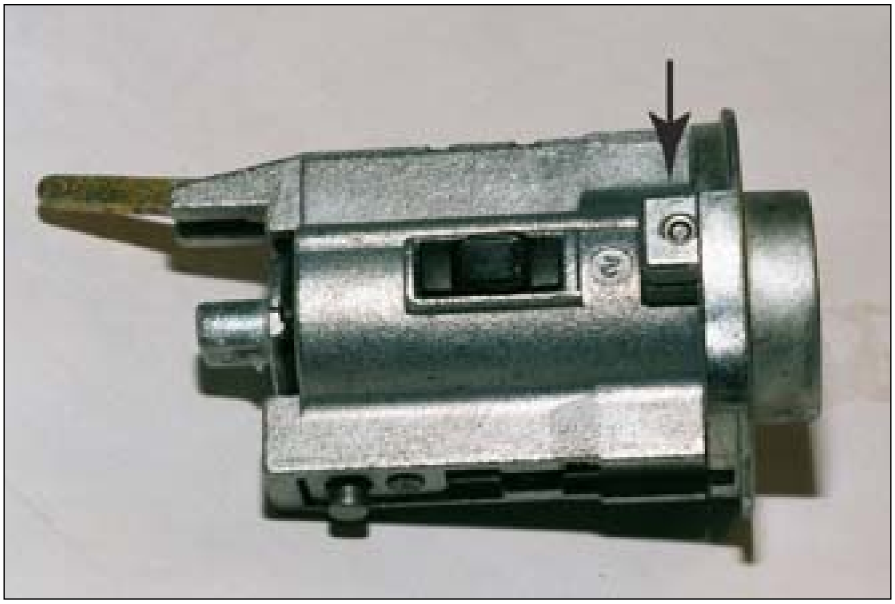


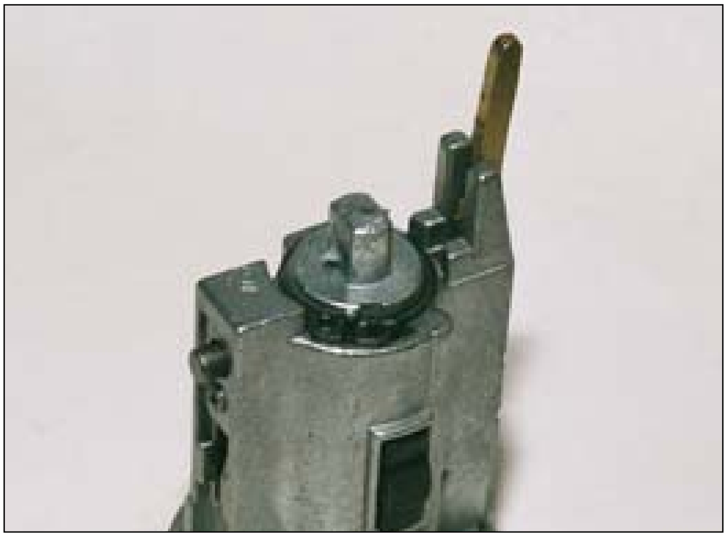
**23. Gently slide the antenna over the front of the ignition housing.**



**24. Like all Toyotas this car uses an active retainer system. With the key in accessory position push in the retainer and remove the ignition cylinder.**

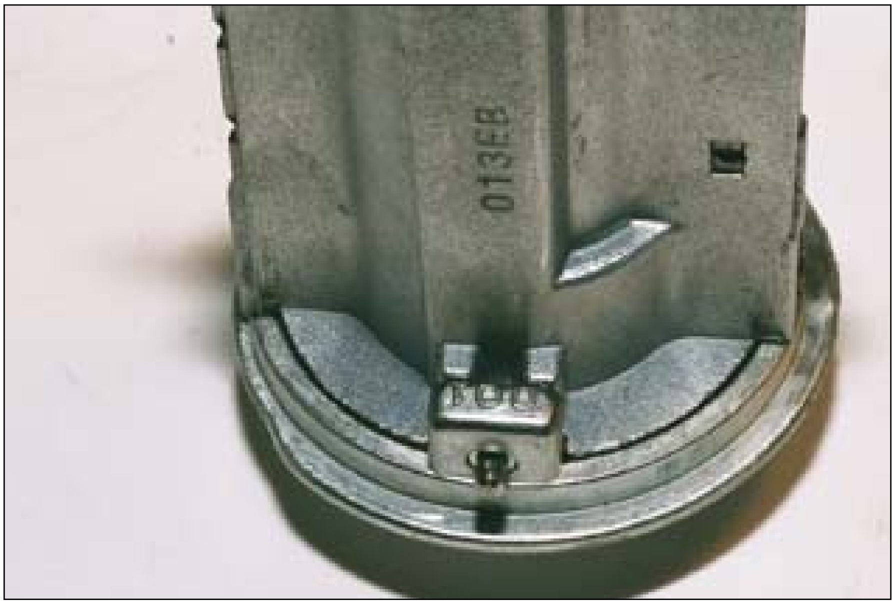
**25. The hardened face cap is held in place with two solid roll pins.**

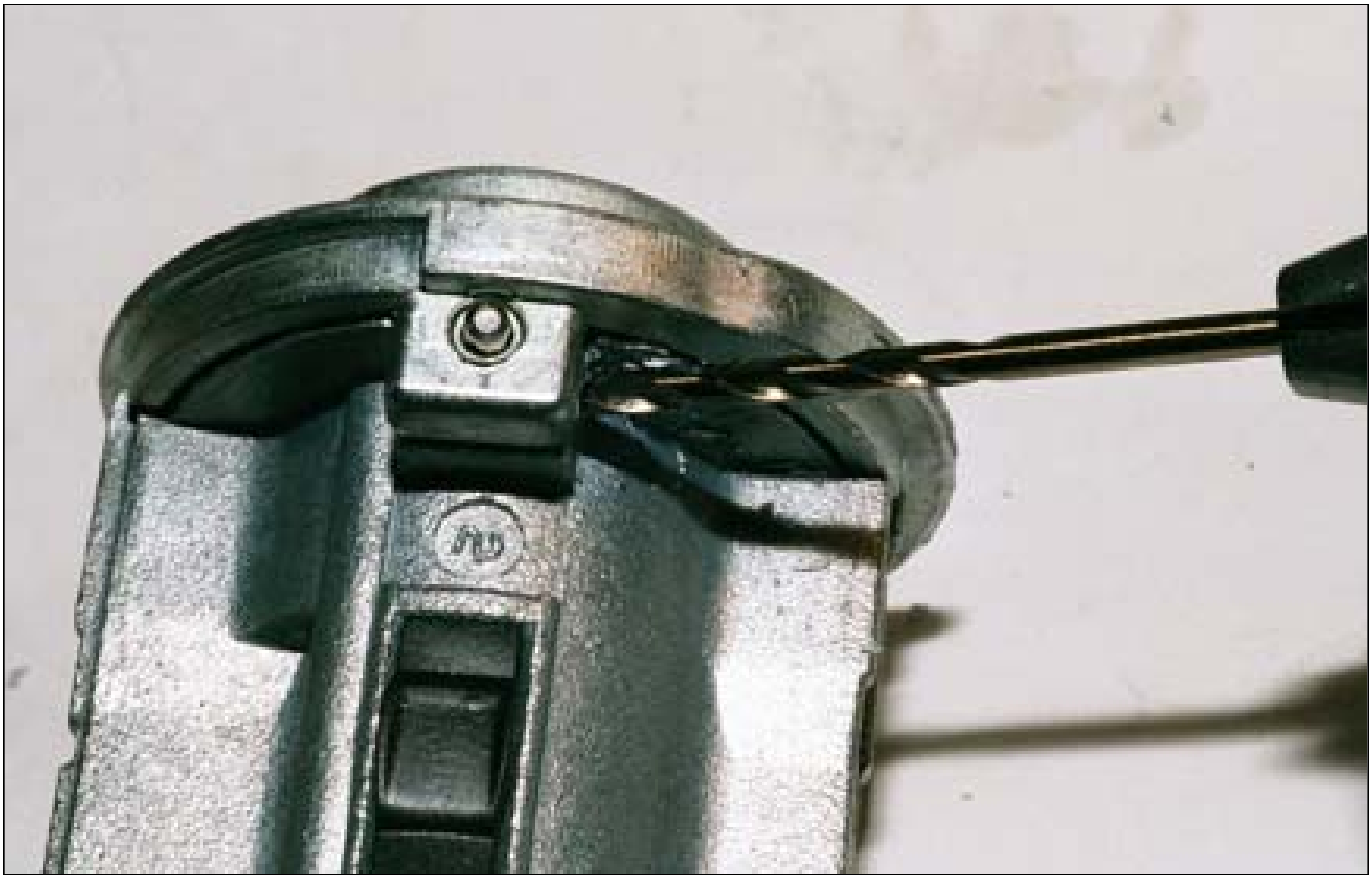




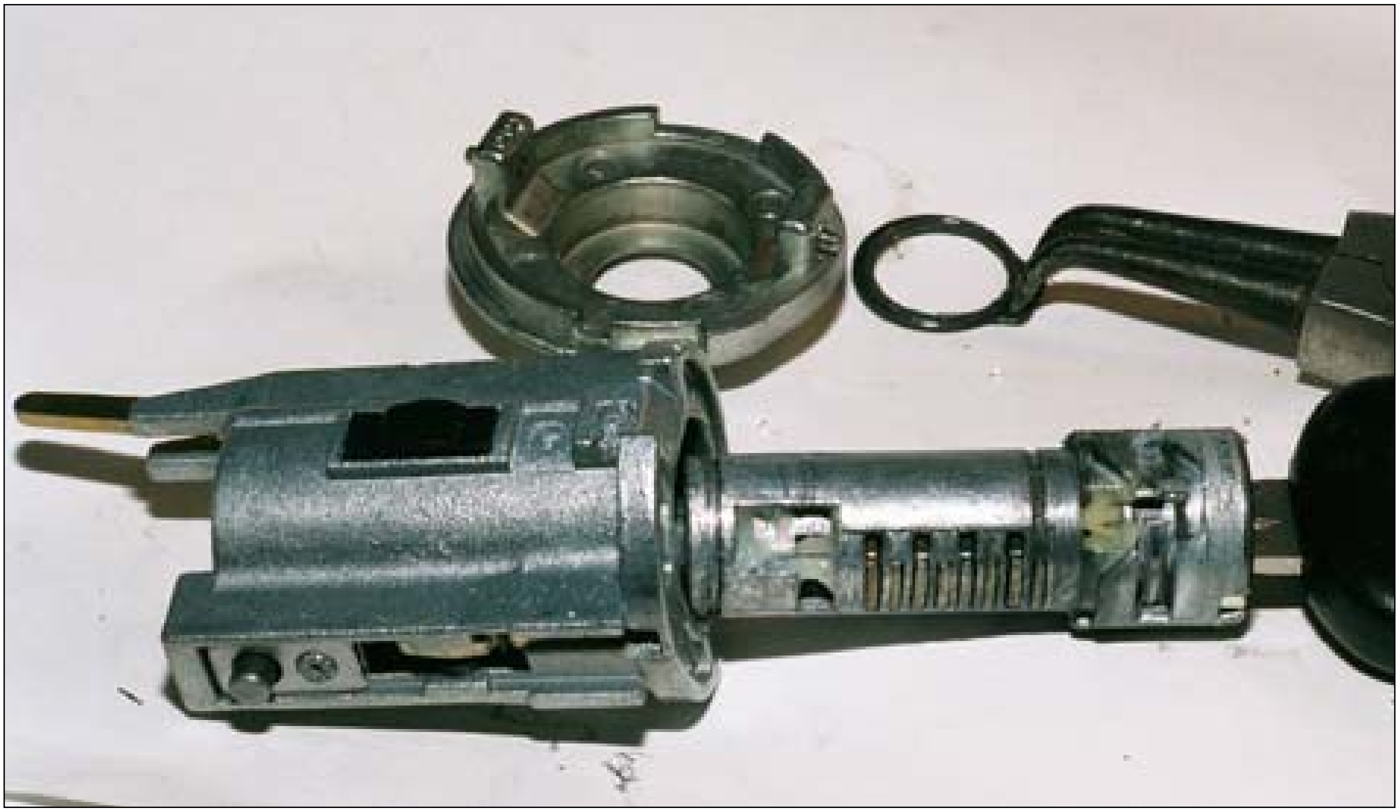
**26. Start by removing the circular clip at the rear of the ignition plug.**

**27. Next remove the roll pin near the "100" stamped on the tab. This can be done easily by inserting a pick and pressing outward on the bottom of the pin.**



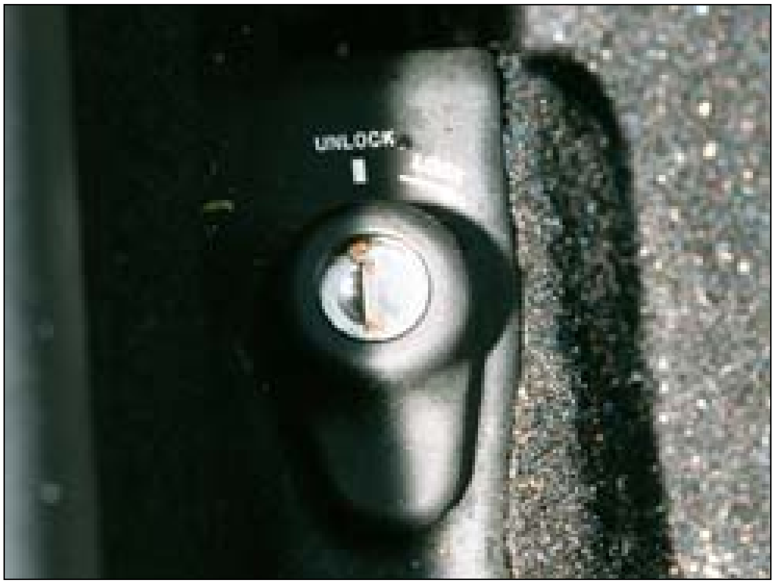


**28. For the other roll pin an access hole must be drilled into the side of the ignition cylinder body. By drilling perpendicular to the base of the pin you can create an access hole. Now use your pick and push the pin outward from the bottom, similar to the first pin.**

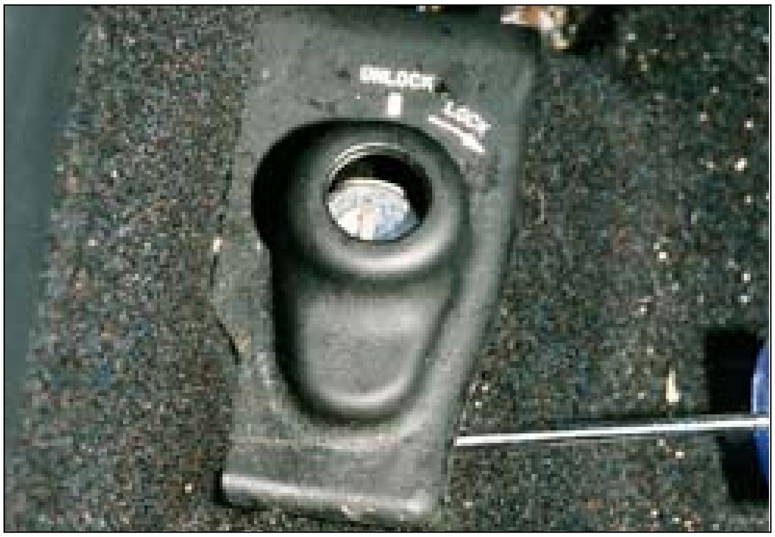


**29. Now with the cap removed the plug comes out of the front of the lock.**

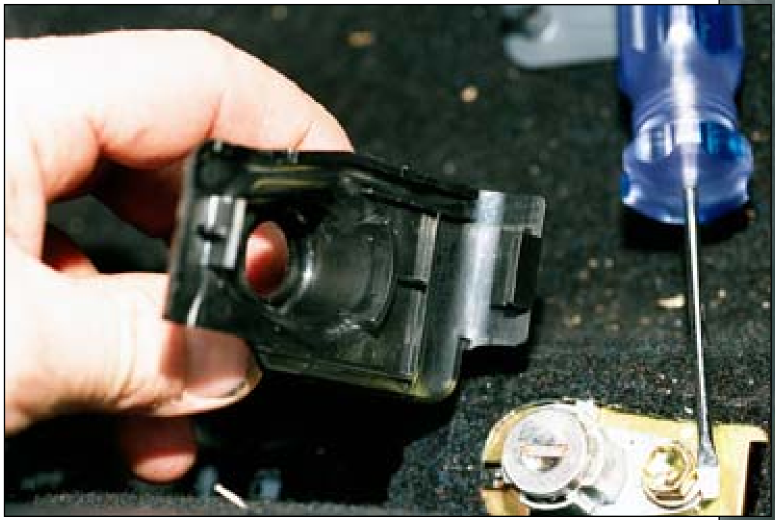
## *Trunk Lock Out Switch Lock:*



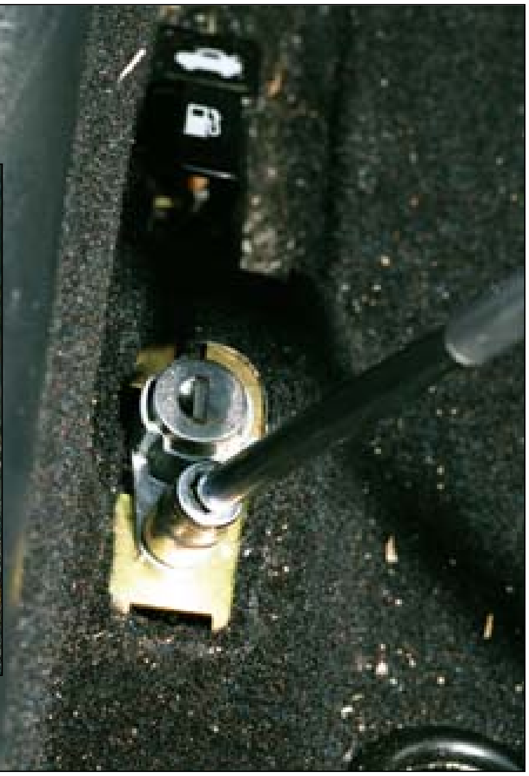
***30. This vehicle does not have a trunk lock. But it does have a Trunk Lock Out Switch Lock.***

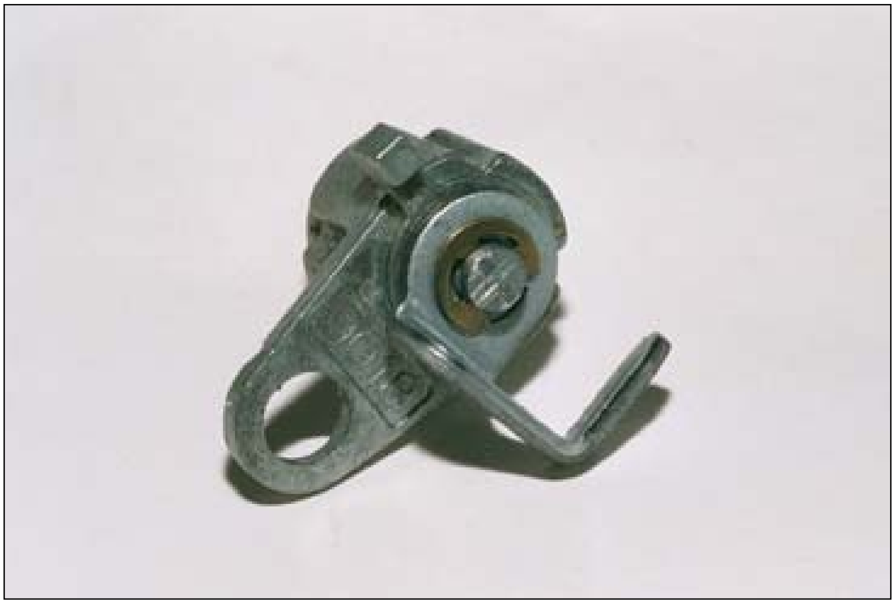


***31. The easiest lock to remove is the trunk lock out release located on the driver's side floor. Start by gently prying upward on the plastic cover.***

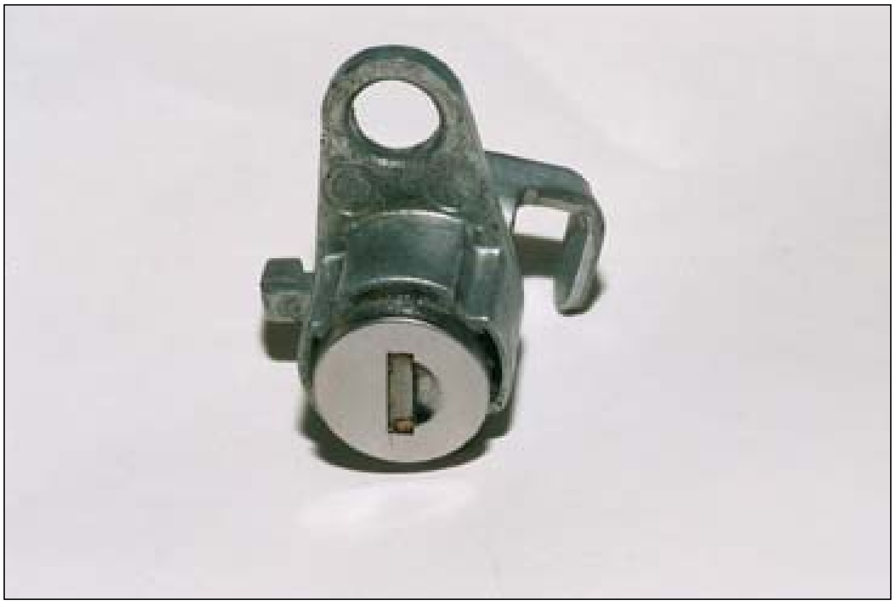


***32. Next remove the single 10mm bolt that secures the lock to the car floor.***

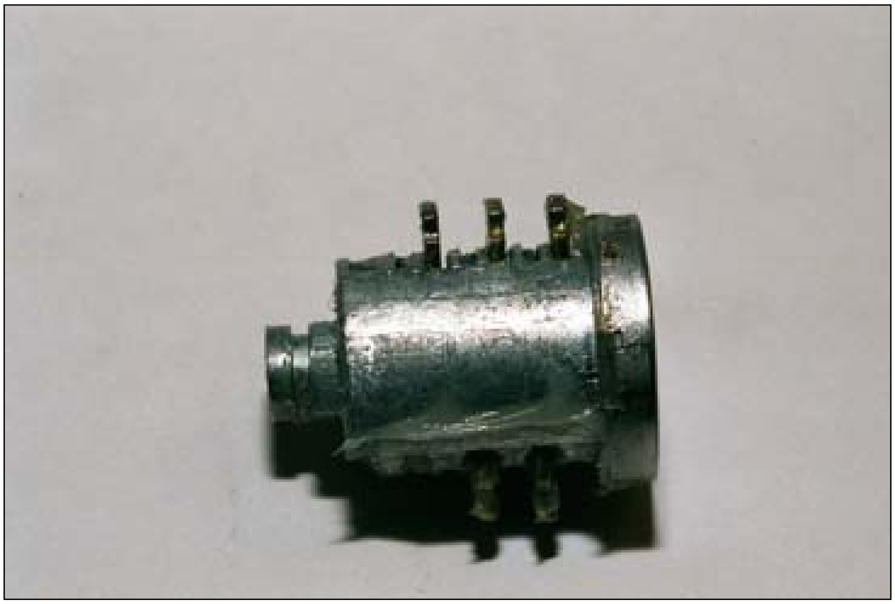




***33. Removing the "E" clip that holds on the tailpiece easily disassembles the trunk lock out switch lock.***

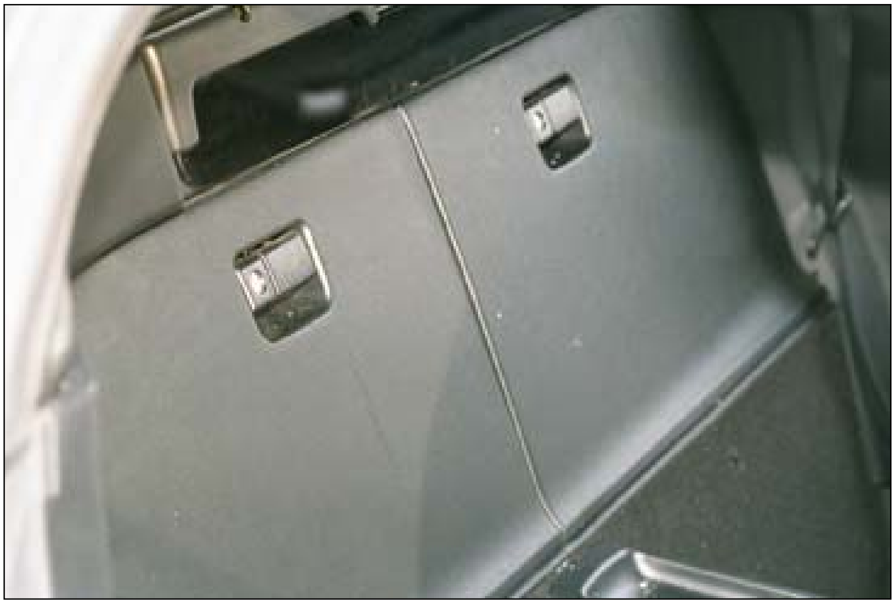


***34. The plug then comes out through the front of the lock.***

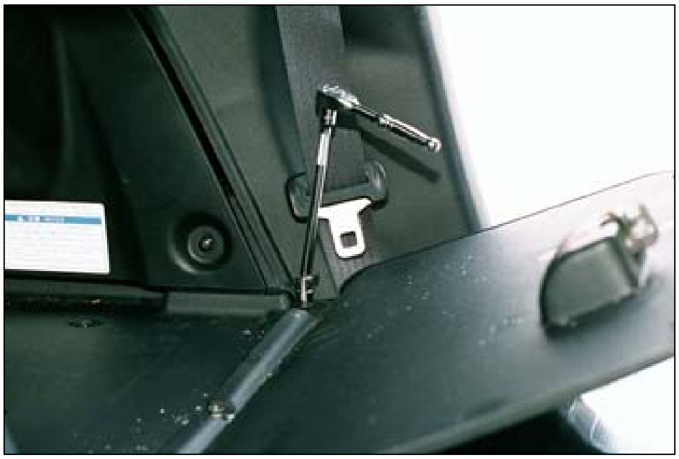


***35. There are 5 tumblers in this position, numbers 4, 5, 6, 7 and 8. If you wish to make a key using this lock you will need to do a progression, which may be quite lengthy, depending on which software you are using.***

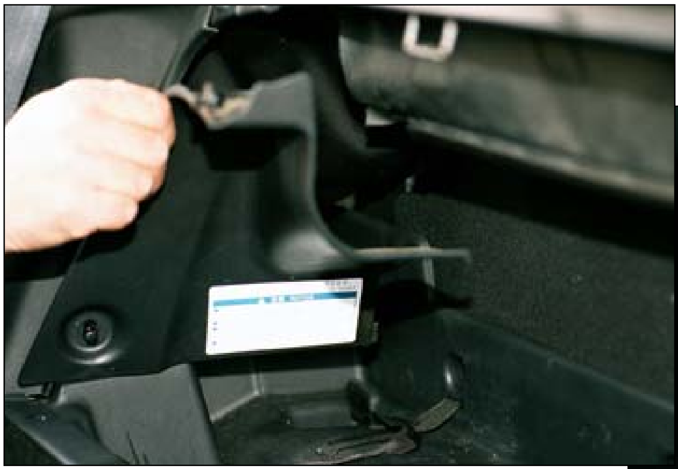
## *"Remember To Disconnect The Negative Battery Terminal Before Removing The ECU"*



***36. Most Toyota ECU's are found behind the glove box, but in this mid-engine car the ECU is located under the luggage compartment, behind the driver's seat.***

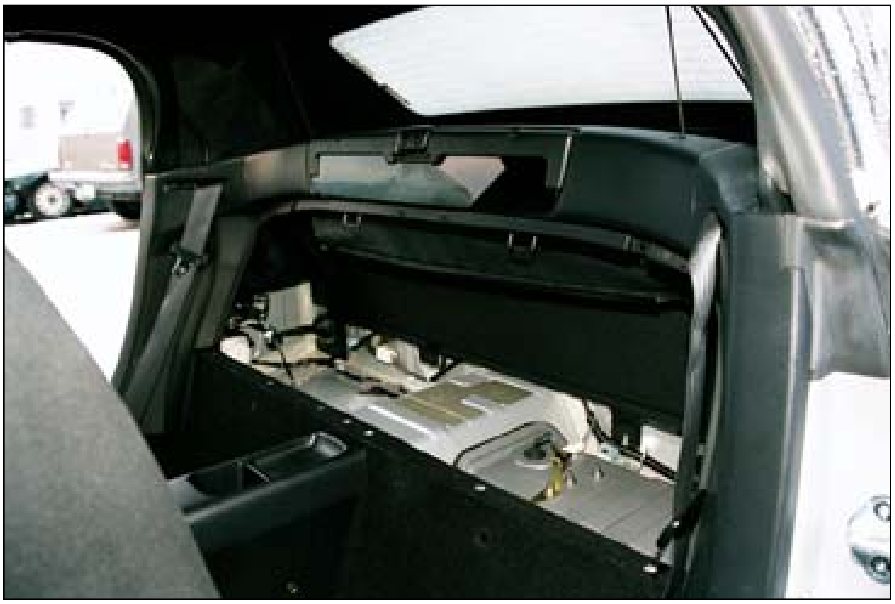


***37. Start by removing the bolts of the bottom panels of the luggage compartment.***

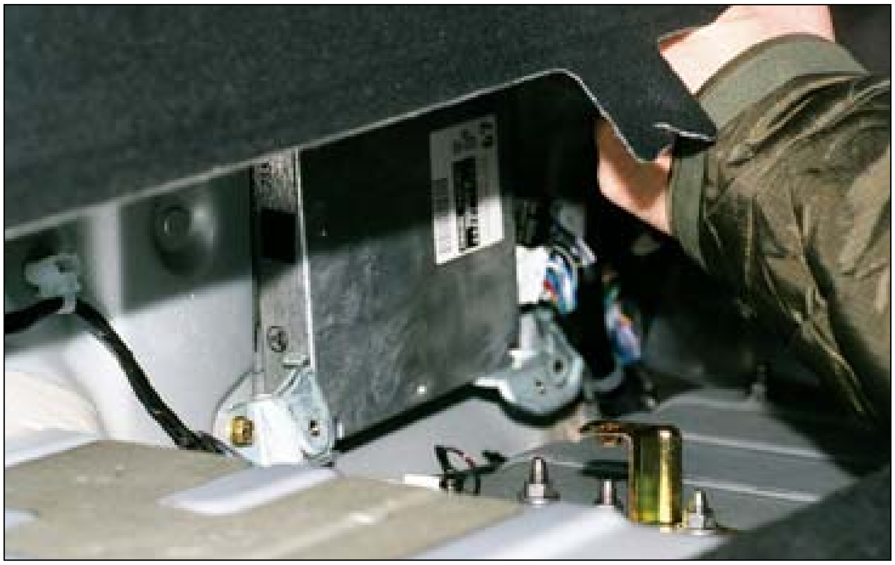


***38. Then remove the luggage compartment side panels.***

***39. Now the bottom panels can be removed.***

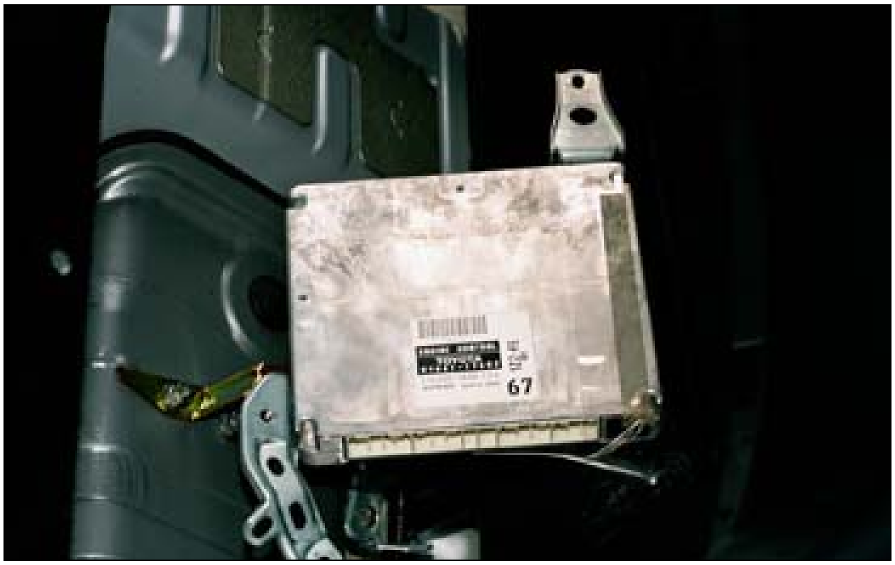


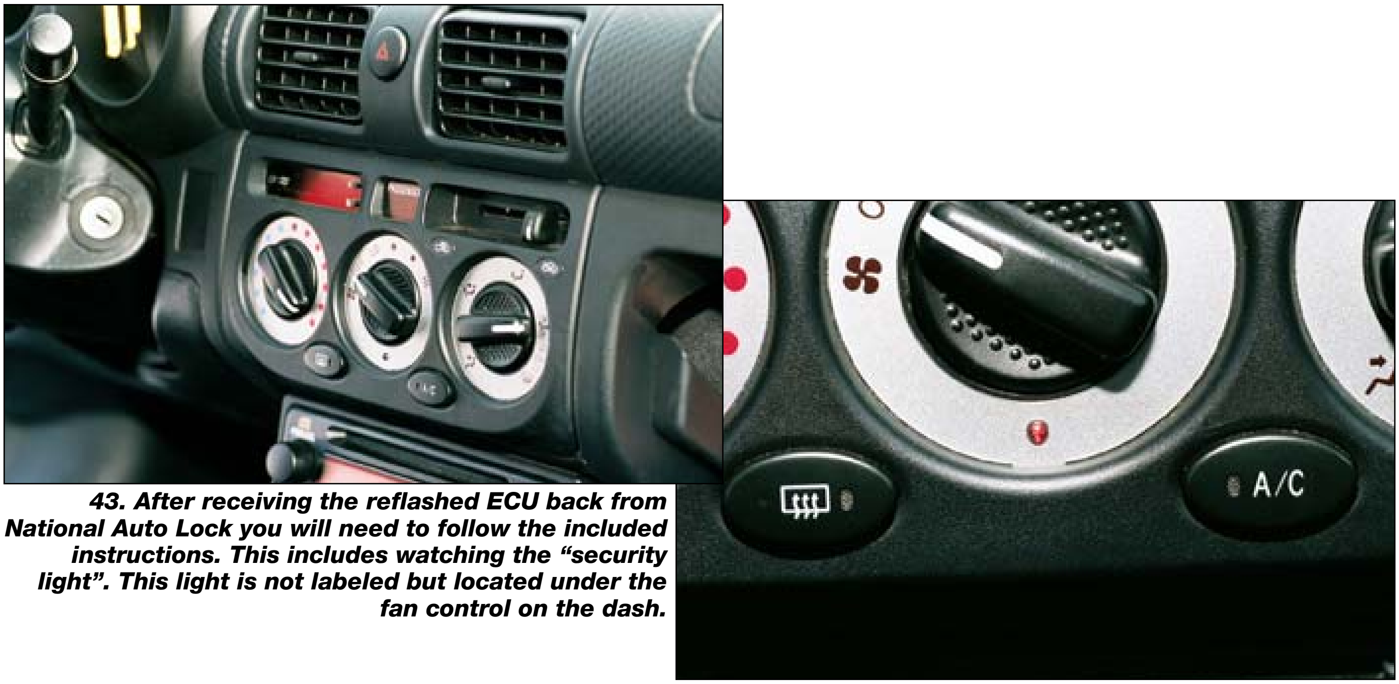
***40. Here is a picture of the storage compartment without any of the panels. Talk about roomy; Toyota must have had the entire family in mind when they designed this car. "You Did Disconnect The Battery, Didn't You?"***



***41. The ECU can now be easily removed. Remove the 10mm bolts securing the ECU to the car frame, and then disconnect the four separate connectors that fit into the right side of the ECU. These connectors are all different, so you don't need to worry about mixing them up.***

***42. The ECU will say "Engine Control" on the label.***





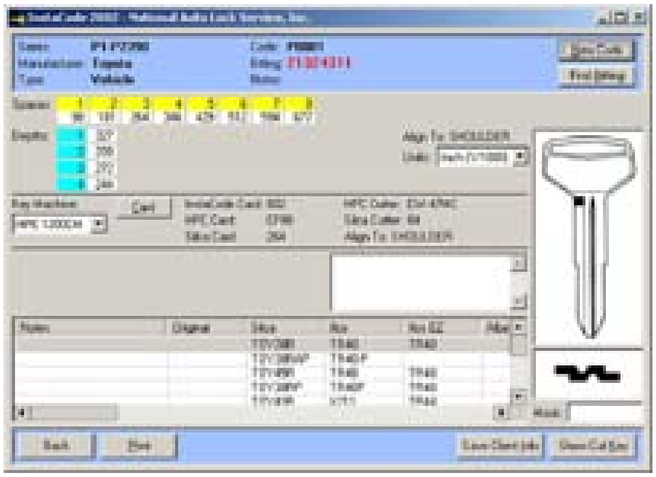
***43. After receiving the reflashed ECU back from National Auto Lock you will need to follow the included instructions. This includes watching the "security light". This light is not labeled but located under the fan control on the dash.***

## *Making First Key:*

**Method 1:** Remove Trunk Lock Out Switch and progression the missing tumblers.

**Method 2:** Remove the passenger side door panel and read code stamped on door cylinder.

**Method 3:** Use the Determinator™ to determine the cuts in the door locks.



### VITAL STATISTICS

**Manufacturer:** Toyota
**Code Series:** P001-2390
**Key Blank:**
Jet: TR40-PHT
**Number of Cuts:** 8
**M.A.C.S.:** 2
**Key Gauged:**
**Center of First Cut:** .098
**Cut to Cut Spacings:** .083
**Cut Depth Increments:** .028
**Notes:**
**Spacings:**
1 - .098
2 - .181
3 - .264
4 - .346
5 - .429
6 - .512
7 - .594
8 - .677
**Depths:**
1 = .327
2 = .299
3 = .272
4 = .244
**HPC 1200CMB**
Code Card: XF88
Cutter: CW-47MC
Jaw: A
Gauge From: Shoulder
**HPC Punch:**
PCH Card: PF88L
Punch:
Jaw: A
**HPC CodeMax**
DSD #: 247
Jaw: A
Cutter: CW-47-MC
**ITL:** 196
**UnoCode:** 264
Vice Adaptor: V100 - Standard
**Framon:**
Cuts Start at: .098
Spacing: .083
Block #: 5
Cutter: FC8735
Depth Increments: .0277
Key Clamping Info: Use flip up shoulder stop.
**Curtis:**
Cam-Set: DC-50
Carriage: Toy-50
**A-1 Pack-A-Punch:** PAK-T2 **TNL**

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